UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/641,223	08/17/2000	Lory Molesky	1958.2005-000	4357

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EXAMINER
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ART UNIT	PAPER NUMBER
2177	

DATE MAILED: 11/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on 06 October 2003 .

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-78* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-78* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 06 October 2003 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____ .

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .

4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____ .

DETAILED ACTION

Response to Amendment

1.   Examiner acknowledges applicants' amendment filed on 10/6/2003,

paper no. # 4.

2.   Claims 55-78 have been added, paper no. # 4.

3.   Claims 1-78 are pending in this application.

Drawings

4.   The drawings filed on 10/6/2003, paper no. # 5 are ***approved*** by the

Draftsperson under 37 CFR 1.84 or 1.152.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5.   Claims 1- 78 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Baker et al., [hereafter Baker], US Patent No. 6338067 in view of Kwan-Liu Ma et al.,

[hereafter Kwan], Efficient Encoding and rendering of time-varying volume data,

NASA/CR-1998-208424 ICASE Report No.98-22, June 1998

6.   As to Claims 1,8,11,19,26,29,37,44,47, 55,63,71, Baker teaches a system which

including 'storing a plurality of raw data values organized as a series in a first database

structure' [fig 1-2, col 4, line 18-29], plurality of raw data values are integral part of

Baker's fig 1-2 because Baker teaches database structure, fig 2, element 200 is

equivalent to the database element 112, fig 1, further entering the data into the

computer database transforming the data documenting a database structure that

integrates the various measures such as data analysis [see fig 7], it is also important to

note that the data analyst retain the original data records or information, data analyst

should always be able to trace a result from a data analysis back to the original forms

on which the data was collected which is integral part of Baker's teaching, therefore,

raw data values are integral part of Baker's fig 1, element 100, 'series of raw data

values' [col 5, line 44-52], Baker specifically directed to data entry system element 118

that is used to load information or data in each field or respective fields for example as

listed in the table I, 'associating the first and second database structures so the

adjustment value is applied to the series of raw data values in response to retrieval'[col

4, line 18-29, col 6, line 49-53, table I-II], first and second database structures

corresponds to Baker's relational database linkage between the quantitative information

records element 212 and the company records element 214, more specifically, Baker

directed to database structure as detailed in fig 2, further table I and table II are

example of database structure, associating the first and second database structure

corresponds to linking various subsets of the data fields listed in table I&II. It is

however, noted that Baker et al. does not specifically teach 'plurality of intervals of

adjusted data', 'creating view of the database' [see fig 1-2,], creating views is a common

knowledge in relational database art, because create table, create view(s), create

schema, create domain and like are integral part of relational database(s), also it is

noted that Baker specifically suggests for example query can be constructed by query

manager fig 1, element 110, therefore, crate table, create view(s) are integral part of

Baker's teaching. Baker especially teaches for example relational database as detailed

in fig 1 and 2, further Baker also teaches for example database structure that including

various data entry fields such as detailed in table I&II, it is also noted that these tables

are connected or joined or established relational linkage between table I&II [col 6, line

49-53]. On the other hand, Kwan disclosed 'plurality of intervals of adjusted data' [page

1, introduction, line 17-24, fig 1, page 9, fig 5], intervals of adjusted data corresponds to

Kwan's raw time varying data as detailed in fig 1].

It would have been obvious to one of ordinary skill in the art at the time of the

invention to incorporate the teachings of Kwan et al., into product/service hierarchy

database for market competition and investment analysis of Baker et al. because they

are both directed to relational databases, more specifically Baker is directed to product

hierarchy database organized in such a way that it is accessible to users for quantitative

analysis, further Baker also suggests linking database structure [see Abstract, fig 1-2,

table I&II], while Kwan is directed to visualization of time-varying volumetric data sets

obtained from various sources [see Abstract], further Kwan also suggests specifically

raw time varying data, encoded time varying data with respect to data structures

[see fig 1, fig 3], and both they are directed to analyzing data. One of ordinary skill in the art at the time of the invention would have been motivated to modifying Baker et al., reference, more specifically fig 1 to incorporate Kwan et al., fig 1, raw time varying database because that would have allowed users of Baker et al., product/service hierarchy database for market competition and investment analysis not only storing various information such as information related to investors, product related information but also have the advantage of storing time varying data.

7.   As to Claims 2,12,20,30,38,48, 56,64,72, the limitations of this claim have been noted in the rejection of Claim 1 above. In addition, Kwan disclosed 'computing the adjustment value for each interval of adjustment data in response to the addition of a subsequent interval of adjustment data' [fig 1, page 2, 16-21, page 3, line 3-7].

8.   As to Claims 3,13,21,31,39,49, 57,65,73, the limitations of this claim have been noted in the rejection of Claim 1 above. In addition, both Baker et al. and Kwan et al. disclosed 'first database and second database [see Baker: fig 1-2; Kwan et al: fig 1], further Baker and Kwan et al. disclosed 'mapping the second database structure to the first database structure' [Baker: fig 2, fig 6, table I&II, col 6, line 49-53, Kwan: fig 3], Baker specifically suggested for example relational database linage between quantitative information records and company records.

9.   As to Claims 4,40, the limitations of this claim have been noted in the rejection of

Claim 1 above. In addition, Kwan et al. disclosed 'raw data values represent a time

series' [see fig 1], raw data values represent a time series corresponds to Kwan's raw

time varying data as detailed in fig 1.

10.   As to Claims 5,14,23,32,41,50, 58,66,74, the limitations of this claim have been

noted in the rejection of Claim 4 above. In addition, Baker et al., disclosed 'time series

tracks financial data' [see fig 7], financial data corresponds to various company stock(s)

value with respect to daily, 52 week, last 1 month, last 3 month, year to data changes.

11.   Claims 6-7,15-16,24-25,33-34,41-42,50-5158-59,66-67,75-76, are rejected in the

analysis of claims above and are rejected on that basis.

12.   As to Claims 9-10,17-18,27-28,35-36,45-46,53-54, 61-62,69-70,77-78,

Kwan teaches a system which including 'adjustment data includes data for a

pending adjustment' [fig 1, page 1, line 17-24, page 2, line 20-21].

13.   Claims 55,63,71are rejected under 35 U.S.C. 103(a) as being unpatentable over

Baker et al., [hereafter Baker], US Patent No. 6338067 in view of Stewart, US Patent

No. 6195103

14.   As to Claims 55,63,71, Baker teaches a system which including 'storing a

plurality of raw data values organized as a series in a first database structure' [fig 1-2,

col 4, line 18-29], plurality of raw data values are integral part of Baker's fig 1-2 because

Baker teaches database structure, fig 2, element 200 is equivalent to the database

element 112, fig 1, further entering the data into the computer database transforming

the data documenting a database structure that integrates the various measures such

as data analysis [see fig 7], it is also important to note that the data analyst retain the

original data records or information, data analyst should always be able to trace a result

from a data analysis back to the original forms on which the data was collected which is

integral part of Baker's teaching, therefore, raw data values are integral part of Baker's

fig 1, element 100, 'series of raw data values' [col 5, line 44-52], Baker specifically

directed to data entry system element 118 that is used to load information or data in

each field or respective fields for example as listed in the table I, 'associating the first

and second database structures so the adjustment value is applied to the series of raw

data values in response to retrieval'[col 4, line 18-29, col 6, line 49-53, table I-II], first

and second database structures corresponds to Baker's relational database linkage

between the quantitative information records element 212 and the company records

element 214, more specifically, Baker directed to database structure as detailed in fig 2,

further table I and table II are example of database structure, associating the first and

second database structure corresponds to linking various subsets of the data fields

listed in table I&II.

It is however, noted that Baker et al. does not specifically teach 'plurality of

intervals of adjusted data', 'creating view of the database' [see fig 1-2,]. As best

understood by the examiner, creating views is a common knowledge in relational

database art, because create table, create view(s), create schema, create domain and

like are integral part of relational database(s), also it is noted that Baker specifically

suggests for example query can be constructed by query manager fig 1, element 110,

therefore, crate table, create view(s) are integral part of Baker's teaching. Baker

especially teaches for example relational database as detailed in   fig 1 and 2, further

Baker also teaches for example database structure that including various data entry

fields such as detailed in table I&II, it is also noted that these tables are connected or

joined or established relational linkage between table I&II [col 6, line 49-53].

On the other hand, Stewart disclosed 'plurality of intervals of adjusted data' [col

3, line 44-65, col 14, line 4-13, fig 7], intervals of adjusted data corresponds to Stewart

time series data that represents real-time data as detailed in col 3, line 44-65.

It would have been obvious to one of ordinary skill in the art at the time of the

invention to incorporate the teachings of Stewart into product/service hierarchy

database for market competition and investment analysis of Baker et al. because they

are both directed to stock market trends, more specifically Baker is directed to product

hierarchy database organized in such a way that it is accessible to users for quantitative

analysis, further Baker also suggests specific stock group, industry trends report [see fig

7]], while Stewart is directed to volatility alert for display of time-series data, more

specifically computing fluctuation of time series stock values on real time basis [see

Abstract, fig 6B] and both they are directed to analyzing data. One of ordinary skill in

the art at the time of the invention would have been motivated to modifying Baker et al.,

reference, more specifically fig 1 to incorporate Stewart computing fluctuation,

computing distance from pattern of specific time to pattern at another time interval of fig

6B because that would have allowed users of Baker et al., product/service hierarchy

database for market competition and investment analysis not only monitoring real time

series data that represents change in stock values from time to time but also have the

ability to displaying various time series data in different colors thereby recognizing

various updates quickly as each new datum from each of the time series arrives as

suggested by Stewart [see col 3, line 21-26], thus improving the quality and

performance of the system.

Response to Arguments

Applicant's arguments filed on 10/6/2003, Claims 1-78 have been fully

considered but they are not persuasive, for examiners response, see discussion below:

15.   At page 14, line 8-10, Claims 1-54, applicant argues, Baker does not teach or

suggest applying stored split data to stock pricing data, nor does Baker teach or

suggest the claim adjustment data

At page 15, line 3-7, applicant argues, the cited references fail to suggest.........

As to the above argument, examiner disagree with the applicant because firstly

Baker is directed to database for market competition and investment analysis, more

specifically hierarchically organizing product database organizes company market

performance and stock investment information [see Abstract], secondly, it is noted that

Baker also specifically suggests database structure containing various modules for

example quantitative module, qualitative module, product hierarchy, pricing module and

like, the specific database structure is clearly disclosed in fig 2, element 200, further it is

noted that Baker also specifically defines various fields that related to various modules

as detailed in table I-II and they are integral part of database structure. Thirdly, it is

noted that Baker specifically directed to pricing module that containing various fields

such as symbol field, security split history record, split date, security prices, last price,

time of last price, 52 week high, 52 week low and like [see col 8, line 45-62]. In the

office action, examiner specifically stated that creating views is a common knowledge in

relational database art, because create table, create view(s), crate schema, create

domain and like are integral part of relational database(s), further it is noted that Baker

specifically directed to database structure [see fig 1-2] and querying database too,

therefore, at minimum Baker teaches database structure qualified for querying data. In

the office action, examiner clearly stated that Baker does not specifically teach plurality

of intervals of adjusted data. On other hand, disclosed plurality of intervals of adjusted

data as detailed in page 1, introduction, line 17-24, fig 1, page 9, fig 5,], as best

understood by the examiner, Kwan specifically directed to organizing time varying

volume data and improving on visualization of time-varying data.

The new Claims especially independent Claims 55,63,71 are rejected under 35

U.S.C. 103(a) as being unpatentable over Baker et al., [hereafter Baker], US Patent No.

6338067 in view of Stewart, US Patent No. 6195103

Conclusion

The prior art made of record

a.   US Patent No.   6338067

b.   Kwan et al.,   Efficient Encoding and rendering of time-varying volume data, Institute for computer applications in science and engineering, NASA Langley research center, VA, NASA/CR-1998-208424 ICASE Report No.98-22, June 1998

c.   US Patent No.   6195103

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure

d.   US Patent No.   551024

e.   US Patent No.   6401091

f.   US Patent No.   6163781

g.   US Patent No.   6272332

h.   US Patent No.   6094650

h.   US Patent No.   6553383

i.   US Patent No.   5414838

j.   EP0897149A1

k.   WO99/32999

l.   Asset control market data management, Business and functional concepts, May 1999, version:0.1, pp1-15

m.   Informix: printed in USA 7/99, pp1-27

n.   Rakesh et al., Managing temporal financial data in an

extensible database, proceedings of the 19th VLDB conference, 1993, pp: 302-313

o.   US Patent No.   5594898

q.   US Patent No.   6317728

r.   US Patent No   5946666

s.   US Patent No   6026381

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Srirama Channavajjala whose telephone number is (703) 308-8538. The examiner can normally be reached on Monday-Friday from 8:00 AM to 5:30 PM Eastern Time. The TC2100's Customer Service number is (703) 306-5631.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E. Breene, can be reached on (703) 305-9790. The fax phone numbers for the organization where the application or proceeding is assigned are as follows:

703/746-7238   **(After Final Communication)**

703/872-9306   **(Offical Communications)**

703/746-7240   **(For Status inquiries, draft communication)**

Any inquiry of general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-9600.

sc
Patent Examiner.
November 5, 2003.